DOCUMENT RESUME

ED 168 713 PS 010 481

AUTHOR Blattstein, Abraham; And Others
TITLE The Relationship of Self-Esteem and Coping to Achievement Change.
SPONS AGENCY National Inst. of Education (DHEW), Washington, D.C.
PUB DATE Aug 78
NOTE 12p.; Paper presented at the Annual Meeting of the American Psychological Association (86th, Toronto, Canada, August 28-September 1, 1978)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS Academic Achievement; *Achievement; *Coping; Effective Teaching; *Elementary School Students; Failure Factors; Grade 6; *Intervention; Models; Psychoeducational Processes; Psychological Patterns; Self Concept; *Self Esteem; *Statistical Studies; Success Factors

ABSTRACT

The purpose of this paper is to clarify the relationship between self-esteem and achievement and to explain why changes in self-esteem have not resulted in changes in achievement. It is postulated that self-esteem affects achievement indirectly through the medium of coping skills. Data from a study of 1657 students in 53 sixth grade classrooms in Austin, Texas were analyzed. Random assignment assured that each class was an integrated, representative sample of the Anglo, Black and Chicano population. Self-esteem and achievement were measured at the beginning and end of the school year. A measure of coping skills was administered at the beginning of the year only. The dependent variable was achievement regressed change. The general analytic method used was a linear model in which the pretest was entered first as a covariate and the predictors were entered next. Hypothesis testing involved comparing restricted models to full models and testing the difference between them. Coping was found to significantly predict achievement change whether or not self-esteem was considered. Coping skills which have behavioral consequences for achievement provide a behavioral network through which intervention should be effective in changing achievement. A general conceptual framework for self-esteem, coping and achievement variables is provided. Directions for further research are suggested. (Author/RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U S DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

SCOPE OF INTEREST NOTICE
The ERIC Facility has assigned this document for processing to: TM SP

In our judgement, this document is also of interest to the clearinghouses noted to the right. Indexing should reflect their special points of view.

ED168713

THE RELATIONSHIP OF SELF-ESTEEM AND COPING TO ACHIEVEMENT CHANGE

Abraham Blattstein, Deborah M. Blattstein, Robert F. Peck

Research and Development Center for Teacher Education

The University of Texas at Austin

PS010481

This study was supported in part by grants and contracts from the National Institute of Education, Department of Health, Education, and Welfare. The opinions expressed herein do not necessarily reflect the position or policy of the National Institute of Education and no official endorsement by that office should be inferred.

Paper presented at the annual meeting of the American Psychological Association, Toronto, Ontario, Canada, August 1978.

THE RELATIONSHIP OF SELF-ESTEEM AND COPING TO ACHIEVEMENT CHANGE

Studies have shown that self-esteem manipulation has no effect on achievement change. A conceptual framework is proposed, hypothesizing that self-esteem affects achievement through coping skills. Sixteen hundred fifty-seven sixth grade students in 53 randomly integrated tri-ethnic classes participated in a year-long study. Using a general linear models approach, self-esteem was found to significantly predict achievement change when taken alone but not when coping was taken into account. Coping was found to significantly predict achievement change whether or not self-esteem was considered. These findings support the proposed relationships.

The Relationship of Self-Esteem and Coping to Achievement Change

In an attempt to find correlates of academic success, researchers have turned to studying personality variables as antecedents of academic achievement. The concept of self has played an important role in many personality theories (e.g., Allport, 1937; Mead, 1934; Lewin, 1936) as well as many general behavior theories (Combs and Snygg, 1959). The applicability of the self-construct with respect to academic success led to a considerable body of literature which attempted to confirm a causal relationship from self-esteem to academic achievement.

An important impetus for this area of research developed out of the work of Combs and Snygg (1959). They proposed that the basic drive of the individual is the maintenance, protection, and enhancement of the self which implies that the self is organized and dynamic. Furthermore, all behavior is dependent upon the individual's personal frame of reference, which is to say,that to the experiencing individual the self is the center of his personal universe and that everything is observed, interpreted, and comprehended from his personal vantage point.

Given that the self is the individual's basic frame of reference, the central core around which the remainder of the perceptual field is organized, then it follows that the phenomenal field is both product of the individual's experiences and producer of whatever new experiences he/she is capable of (Combs and Snygg, 1959, p. 146).

Since many educational programs have failed to produce expected gains in achievement, innovative programs particularly in early childhood development and compensatory education were based on the

assumed causal relationship of self-esteem to achievement. Evaluation studies of programs which were almost exclusively oriented toward modifying self-esteem with the expectation that gains in achievement would follow, have been found to be unsuccessful in that respect (Hawkridge, Tallmadge, and Larson, 1968).

Self-esteem and academic achievement appear to be related, but in light of the program evaluations it is doubtful that changes in self-esteem will directly cause changes in achievement. By improving the research design, Calsyn (1973) purported to be able to unravel the pattern of causal predominance between self-esteem and scholastic achievement. He concluded that achievement is causally predominant over self-esteem since there was a stronger relationship in this direction. The fact that the relationship from achievement to self-esteem is stronger, does not however in any way disclaim that the relationship from self-esteem to achievement still exists. Therefore, the problem still remains as to why manipulating self-esteem does not result in the expected change in achievement.

The basic premise that self-esteem affects the individual's behavior follows directly from self-concept theory. The confusion arose in mistakingly equating achievement, which is the outcome, for those antecedent behaviors which lead to the outcome. These antecedent behaviors which are prerequisites for attaining an outcome are known as coping skills. Coping skills are defined as the style in which one approaches problems. Important components of coping include the ability to imagine alternative solutions to problems, to conceptualize

means to solve problems, and to move toward a constructive resolution of the problems (Shure, Spivak, and Jaeger, 1971).

Therefore, it is the coping skills which should be the focus of intervention in order to affect achievement. Both Calsyn (1973) and West and Fish (1973) concluded that, if the purpose is to increase school achievement, direct teaching for achievement should be more effective than trying to enhance self-concept. This recommendation does not resolve the original problem which was the impetus for this area of research.

The purpose of this paper is to elucidate the relationship between self-esteem and achievement which consistently appears in the research findings and also to explain why changes in self-esteem have not resulted in changes in achievement. It is postulated that self-esteem affects achievement indirectly through the medium of coping skills. Invoking coping skills which have behavioral consequences for achievement provides a behavioral network through which intervention should be effective in changing achievement. The basic postulate of the general proposed framework in this paper suggests that engaging in effective coping results in high achievement. Self-esteem comes into play with respect to the receptiveness of the individual to modifying his/her coping behavior in such a way as to enhance achievement.

The foregoing discussion was intended to provide a conceptual rationale to explain why a significant relationship from self-esteem to achievement appears even if time reference correlational designs are employed. The present study has utilized a similar time sequence design to that of Calsyn (1973) in which self-esteem and achievement were both measured at the beginning and end of the school year. The purpose of

this was to assess the relationship between initial student factors and their relationships to individual longitudinal changes over the school year. A measure of coping skills was administered at the beginning of the year only.

The objective of this study is to examine the interrelationship of self-esteem and coping as they affect achievement change. Hence, the dependent variable in this study was achievement regressed change rather than achievement posttest score, which was accomplished by including the achievement pretest measure as the first covariate. For purposes of clarity throughout the remainder of the paper, unless otherwise indicated, achievement as the criterion variable will refer to achievement regressed change.

Due to the large number of statistical tests (linear, quadratic, and interaction effects) performed and the large sample size, Cohen's (1975) suggestion that the alpha level be replaced by a "Worthy of Interpretation" (WI) criterion for determining significance was adopted. The WI criterion is $p < .01$ and percent of variance explained ≥ 1.0.

Hypotheses

(1) Self-esteem is expected to significantly predict achievement.

(2) Coping skills is expected to significantly predict achievement.

(3) It is expected that the effect of self-esteem on achievement will be nonsignificant when the relationship between coping and achievement is taken into consideration.

(4) It is expected that the effect of coping on achievement will remain significant when self-esteem is taken into account.

Method

The research sample of the Teaching-Learning Interaction Study (TLI) (Peck, 1978) provided the data base for this paper. The TLI study was particularly suited for testing the propositions of this paper since it was designed to simultaneously assess multiple student characteristics such as achievement, self-esteem, and coping skills and their relationships to individual longitudinal gains or losses over the school year. The data came from 1657 students in 53 sixth grade classrooms in Austin, Texas. Random assignment assured that each class was an integrated, representative sample of the Anglo, Black, and Chicano population. The students' measures included the Comprehensive Test of Basic Skills (CTBS) (test-retest reliability .90); the Piers-Harris Self-Concept Scale (P-H)(alpha .93, test-retest .77); and the Behavior Rating Scale-Other Rating (BRS-OR) (alpha .95). The BRS-OR was designed to assess the individual's school related coping skills and the ratings were provided independently by 10 students in the class. All instruments were first administered four to six weeks into the school year and all except the BRS-OR were readministered at the end of the year.

The general analytical method utilized was a linear model approach in which the pretest was entered first as a covariate and the predictors were entered subsequently. Equation 1 presents the model used in the analysis

$$Y = aU + bX + cX^2 + dP + eP^2 + fXP + gXP^2 + hX^2P + iX^2P^2 \qquad (1)$$

where

Y = the criterion (achievement)
X_2 = achievement pretest
X^2 = achievement pretest quadratic
P_2 = predictor (self-esteem, coping)
P^2 = predictor quadratic
$XP - X^2P^2$ = interaction terms

The analytical procedure used to test the hypotheses involved comparing restricted models to full models and testing the difference between them. An F test was used to test for significance. The X^2 term was retained in the starting model when it was found to be significant. Subjects with missing data were excluded from the analyses.

Results

The pretest measures correlated as follows: self-esteem (P-H) - achievement (CTBS) (r = .26); coping (BRS-OR) - CTBS (r = .42); BRS-OR - P-H (r = .26). The correlation between the pretests and achievement posttest were: CTBS pre-post (r = .74); P-H - CTBS (r = .27) and BRS-OR - CTBS (r = .40).

There was a significant effect of self-esteem (linear) ($F(1,1178) = 13.9079$, $p < .001$, percent of variance - 1.2) and of coping (linear) ($F(1,1042) = 29.1185$, $p < .001$, percent of variance = 2.6) on achievement regressed change. The effect of self-esteem (linear) on achievement regressed change partialling coping was not significant[1] ($F(1,1039) = 7.7634$, $p < .01$, percent of variance = 0.7). The effect of coping on achievement regressed change partialling self-esteem was significant ($F(1,1039) = 23.7913$, $p < .001$, percent of variance = 2.14).

[1]This statement is based on evaluating the p value as well as the percent of variance (see page 4). It would be instructive to note the difference in predictability in terms of percent of variance between the whole and unique effect of self-esteem.

Discussion

Calsyn's (1973) findings demonstrated that the relationship between self-esteem and achievement is asymmetrical with achievement being causally predominant over self-esteem. However, emphasizing the predominant relationship, the initial problem is bypassed since the central issue has not been addressed. In other words, the self-esteem to achievement relationship is neither discounted nor explained.

This study was designed to offer an explanation as to why intervening on self-esteem did not produce the expected change in achievement although the relationship appears to be a stable and recurring one. By identifying and taking into account another personality variable which can be intervened upon directly and which has more direct theoretical and practical relevance to achievement, it is possible to show that the predictability of self-esteem to achievement diminishes appreciably. If self-esteem does not predict significantly, it can not be a direct causal factor. The results of this study lend support to these statements. The results also support a general conceptual framework which is depicted by Model 1.

Model 1

Model 1: SELF-ESTEEM ⟶ COPING ⟶ ACHIEVEMENT

This model is simple and does not take into account many other factors and complex relationships. The value of this model is primarily heuristic as a core for guiding future research. In accordance with Model 1, interventions aimed directly at coping

skills would be expected to be more successful in improving achievement if the intervention also includes components aimed at improving self-esteem. This recommendation is based on the postulate that the individual strives for consistency between the internal frame of reference and the external environment. Therefore, individuals are motivated to do whatever is necessary in order to synchronize these two perspectives. Thus, it follows that at low levels of self-esteem the individual will be less receptive to improving his/her coping behaviors since poor achievement is congruent with his/her internal frame of reference. On the other hand, someone with high self-esteem should be amenable to change. This hypothesis was not tested in this study, but should be examined in subsequent studies. In light of this, the natural relationship from achievement to self-esteem could easily be capitalized upon by providing feedback to the student about achievement success. However, this relationship should not be the sole element relied upon to change self-esteem.

References

Allport, G.W. Personality: A psychological interpretation. New York: Holt, Rinehart, and Winston, Inc., 1937.

Calsyn, R. J. The causal relationship between self-esteem, a locus of control and achievement: A cross-lagged panel analysis. Ann Arbor, Michigan: University Microfilm, 1973.

Cohen, J., & Cohen, P. Applied multiple regression/correlation analysis for the behavioral sciences. Hillsdale, New Jersey: Lawrence Erlbaum, 1975.

Combs, A.W., & Snygg, D. Individual behavior (revised ed.), New York: Harper and Row, 1959.

Hawkridge, D. G., Tallmadge, G.K., & Larsen, J.K. Foundations for success in educating disadvantaged children. Final Report on Project No. 107143. Washington, D.C.: U.S. Office of Education, 1968.

Lewin, K. Principles of topological psychology. New York: McGraw-Hill, 1936.

Mead, G. H. Mind, self, and society. Chicago: University of Chicago Press, 1934.

Peck, R.F. Teaching-learning interaction study: Progress report. Contract No. NE-C-00-3-0066, Austin, Texas, Research and Development Center for Teacher Education, 1977.

Shure, N.B., Spivak, G., & Jaeger, M. Problem-solving thinking and adjustment among disadvantaged preschool children. Child Development, 1971, 42(6), 1791-1803.

West, C.K., & Fish, J.A. Relationship between self-concept and school achievement: A survey of empirical investigations. Final report. Report for the National Institute of Education (DHEW), Urbana, Illinois: ERIC clearing house on Early Childhood Education, 1973. (ERIC ED 092 239.)